

CLAIMS

1. A pneumatic support (1),
  - with a gas-tight, elongated hollow body (2) of a flexible material that can be pressurized with compressed gas,
  - and with at least two compression/tension elements (5),characterized in that
  - these compression/tension elements (5) adjoin the hollow body (2) along a surface line thereof and are connected to the hollow body, in that
  - the hollow body (2) has a tapered shape toward both of its ends, and in that
  - the at least two compression/tension elements (5) are positively connected to one another at their ends.
2. The pneumatic support (1) according to Claim 1, characterized in that the at least two compression/tension elements (5) are arranged around the hollow body (2) in a rotationally symmetrical fashion.
3. The pneumatic support (1) according to one of Claims 1-2, characterized in that at least one of the at least two compression/tension elements (5) only needs

to absorb tensile forces and consequently is realized in the form of a tension element (4), and in that at least one of the at least two compression/tension elements (5) only needs to absorb compressive forces and consequently is realized in the form of a compression member (3), wherein this at least one compression member (3) is non-positively fixed on the hollow body (2) along a surface line thereof and non-positively connected to at least one tension element (4) at its two ends.

4. The pneumatic support (1) according to Claim 3, characterized in that the at least one compression member (3) extends along a surface line of the hollow body (2) that lies diametrically opposite of the tension element (4) and is non-positively fixed on this hollow body (2).
5. The pneumatic support (1) according to one of Claims 1-4, characterized in that the hollow body (2) has an essentially circular cross section along the longitudinal axis.
6. The pneumatic support (1) according to one of Claims 1-5, characterized in that the hollow body (2) is essentially divided into several chambers (10) that can be pressurized transverse to the longitudinal axis, wherein these chambers (10) essentially extend over the entire cross section of the hollow body (2).
7. The pneumatic support (1) according to Claim 6, characterized in that the chambers (10) are pressurized to different degrees and subjected to a

higher pressures toward the ends of the hollow body (2) than in the center of the hollow body (2).

8. The pneumatic support (1) according to one of Claims 1-5, characterized in that the hollow body (2) is divided into several chambers (10) that can be pressurized and essentially lie parallel to the longitudinal axis, wherein these chambers (10) essentially extend over the entire length of the hollow body (2).
9. The pneumatic support (1) according to one of Claims 1-8, characterized in that end pieces (9) are provided on both ends, wherein compression members (3), tension elements (4) and compression/tension elements (5) are non-positively fixed on said end pieces.
10. The pneumatic support (1) according to one of Claims 1-9, characterized in that the compression/tension elements (5) are elastically bendable, and in that the support (2) can be rolled up or folded up in the non-pressurized state.
11. The pneumatic support (1) according to one of Claims 1-10, characterized in that the compression/tension elements (5) are fixed on the hollow body (2) by means of
  - several bands that extend around the hollow body (2) and are fixed on the compression/tension elements (5) or

- by means of pockets, into which the compression/tension elements (5) are inserted, or
  - by means of welt-type connections.
12. The pneumatic support (1) according to one of Claims 1-11, characterized in that the hollow body (2) is composed of an outer cover (7) and at least one inner bladder (11) inserted therein, wherein the outer cover (7) is manufactured of a flexible material of limited stretchability and the inner bladder (11) is manufactured of an air-tight elastic membrane.
  13. The pneumatic support (1) according to one of Claims 6-8 and 12, characterized in that the outer cover (7) of the hollow body is divided into several chambers (10) by means of webs (12).
  14. The pneumatic support (1) according to one of Claims 1-13, characterized in that the support (1) is realized in an arc-shaped fashion.
  15. The pneumatic support (1) according to Claim 14, characterized in that the ends of the arc-shaped support (1) are connected by an external tension element (14) that does not adjoin the hollow body (2).
  16. The utilization of pneumatic supports (1) according to one of Claims 1-15 as support elements in building construction and civil engineering works.
  17. The utilization of at least two pneumatic supports (1) according to one of Claims 1-15 as bridge supports,

wherein the roadway construction (13) is placed on the upper compression/tension elements (5) and fixed thereon.